

REMARKS

Favorable reconsideration of this application as presently amended and light of the following discussion is respectfully requested. Claims 1-16 and 18-30 are pending, Claims 1-14 having previously been withdrawn from consideration and Claim 15 amended by way of the present amendment. The amendment to Claim 15 has been made to correct an informality and to clarify the “virtual energy storage mechanism”, which is supported by the specification at least at paragraph [0033], and therefore no new matter is added.

In the outstanding Office Action Claims 15-16 were rejected as being unpatentable over Perez (U.S. Patent No. 6,542,791) in view of Weiss (U.S. Patent No. 6,681,156) and Applicants’ Admitted Prior Art (“AAPA”); dependent Claim 18 was rejected as being unpatentable over Perez, Weiss, and AAPA and in further view of Edelman et al. (U.S. Patent No. 6,281,601, hereinafter “Edelman”); Claims 19-27 were rejected as being unpatentable over Perez, Weiss, the AAPA and in further view of Takriti (U.S. Patent No. 6,021,402); and Claims 28-30 were rejected as being unpatentable over Perez, Weiss, the AAPA and in further view of Pitchford et al. (U.S. Patent No. 6,327,541, hereinafter “Pitchford”).

Claim 15 has been amended to further clarify what is meant by the “virtual energy storage mechanism”, as it is believed that this language has not been fully appreciated so far in the present prosecution. Moreover, Claim 15 has been amended to clarify that the another power production facility serves as the virtual energy storage mechanism by releasing stored resources to produce power to cover a production shortfall by the renewable power production facility, and by increasing potential energy by capturing and storing resources at the another power production facility to offset a production surplus by the renewable power production facility. Support is found in the specification at paragraph [0033], and therefore no new matter is added. This feature has been added to Claim 15, because as will be

discussed below, it is believed that no combination of Perez, Weiss and AAPA teach individually, or in combination, the virtual energy storage mechanism.

The Office Action recognizes that Perez is directed to a system that controls a load (and not power production), and does not teach elements “(d) and (e)”, which are the last two elements of Claim 15. In an attempt to cure this deficiency the Office Action asserts a newly presented reference, Weiss that is alleged to disclose element (d) in the pending claims, namely with regard to Claim 15, “adjusting and applying to transmission lines a power output of said [other] another power production facility by an amount that corresponds with said predetermined quantity so as to compensate for any deviation from the threshold by the renewable power production facility and have a resultant total power produced by or on behalf of the renewable power production facility to be approximately at said threshold.”

The passages and sections referred to in the Office Action regarding Weiss, relate to a system and method for planning energy supply and provide an interface to an energy management system for use in planning and energy supply. The Office Action points to, for example, column 15, lines 27-62, which discusses how variations in load demands from energy consumers, give rise to price pressures for energy suppliers based on demand. Moreover, Weiss describes curves that quantify the needs and capabilities to provide an economic tradeoff between the parties in terms of price for over/underload versus percentage deviation for the plan load. These passages in Weiss refer to Figures 13E and F, for example, which show a price and energy availability tradeoff. Thus, as with Perez, Weiss is directed to controlling a load, and not coordinating between power production facilities.

The Office Action also relies on column 17, lines 31-67 in Weiss, which describes the use of a curve in Figure 13C, for example, to illustrate a function of a price for an overload or underload of planned power delivery from an energy supplier versus a deviation from the planned power delivery. The Office Action then associates these passages in Weiss, with

another description in Weiss regarding certain power restrictions be obtained from “green” energy sources. However, even these teachings in Weiss do not correspond with the claimed step of adjusting and applying to the transmission lines a power output of said other another power production facility by an amount that corresponds with the predetermined quantity...on behalf of the renewable power production facility to be approximately at the threshold.

Furthermore, step (d) of “adjusting”, needs to be read in correspondence with step (e) of “keeping an account balance in a memory of an amount of energy to be later produced by the another power production facility on behalf of the renewable power production facility.” It is this account balance that gives rise to the “virtual energy storage mechanism,” as claimed. The claimed virtual energy storage mechanism solves the problem of the renewable’s variable amount of power by (1) informing the another power production facility of the predetermined quantity needed to reach the threshold, (2) adjusting the power output of the another power production facility, and (3) keeping an account balance in the memory of the amount of energy to be later produced by the another power production facility on behalf of the renewable power production facility. Moreover, the another power production facility serves as the virtual energy storage mechanism by releasing stored resources to produce power to cover a shortfall by the renewable power production facility. On the other hand, when the renewable power production facility generates a production surplus, the another power production facility increases potential energy by capturing and storing resources at the another power production facility to offset the production surplus. Non-limiting support for this aspect of Claim 15 is found in the present specification in [0033], for example. The disclosed example is of a hydro-electric plant serving as the “another power production facility”, and when an excess power is produced at a renewable power production facility

(e.g. a wind turbine), the hydro-electric plant can offset this surplus, production by supplementing its hydro reserve, thus increasing its potential energy.

For these claim elements, the Office Action relies on the AAPA of Figure 3 regarding an energy market described in the Background section of the present patent application. The market in Figure 3 fails to describe a direct coordination between a renewable power production source and another power provider in the market. In the conventional market of Figure 3, renewable power sources simply apply their power to the grid and are later compensated for such contributions. Any shortfall noticed in the system is reported to a system operator, and the system operator aggregates total network surpluses or shortfalls, and compensates for such network level shortfalls or surpluses through controllable outputs of balance providers (see page 7). The market in Figure 3 describes a coordination at the network level between various power providers, and describes nothing about keeping an account balance in memory of an amount of energy to be later produced by the another power production facility on behalf of the renewable power production facility.

Incorrectly, the Office Action merely asserts that the AAPA “fairly teaches step (e) for the purpose of fulfilling the power exchange contract and balance obligation agreement settlement as shown on pages 6-9 and Figs. 2-3.” Applicants traverse this assertion because the AAPA simply does not perform this function nor does it describe the function. Claim 15 expressly requires keeping an account balance in a memory of an amount of energy to be later produced by another power production facility on behalf of the renewable power production facility. The AAPA does not produce power from a power production facility on behalf of the renewable power production facility and keep an account balance in memory of the amount of energy to be later produced. This “virtual energy storage mechanism” as claimed, is simply absent in the AAPA, is absent in Weiss, and is also absent in Perez. As such, it is respectfully submitted that Claim 15 patentably defines over the asserted prior art.

Each of the other claims are dependent claims and the references asserted in the outstanding Office Action do not cure the deficiencies with regard to Claim 15 as discussed above. Consequently, it is respectfully submitted that Claims 16 and 18-30, also patentably define over the asserted prior art for substantially the reasons discussed above with regard to Claim 15.

Claim 28 depends from Claim 15 and further requires a step of “controlling directly said another power production facility to implement said adjusting step through a ganged operation with said renewable power production facility.” The Office action recognizes that the AAPA does not describe this feature and relies on Pitchford as describing this feature. Applicants traverse this assertion. Pitchford is directed to a system for managing energy consumption, not energy production. The Office Action cites the four reasons at col. 2, line 33 for support for the benefits of the system described in Pitchford. However, consistent with the teachings in Pitchford, this passage describes information that allows customers to do the following (1) understand their energy usage, (2) manage and improve control of their energy usage and consumption, (3) allocate costs . . . and (4) reduce energy expenses . . . These four reasons, and Pitchford generally have nothing to do with controlling directly another power production facility to implement the adjusting step through a ganged operation with the renewable power production facility. Neither Pitchford nor any of the other reference describe such a one-on-one direct coordination between two power production facility, and certainly do not suggest a “ganged operation.” Thus, in addition to the reasons given above with regard to Claim 15, it is respectfully submitted that the Office has not met its burden of asserting prior art references that contain all of the elements of Claim 28.

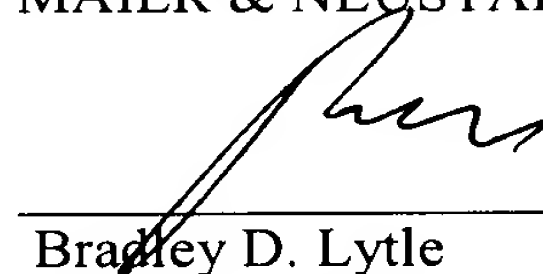
Similarly, the Office has not asserted a reference that discloses a step of “adjusting”, according to Claim 15, that also includes “adjusting the power output by receiving a data message via an electronic communication with said renewable power production facility,”

according to Claim 29. As discussed above with regard to Claim 28, Pitchford does not disclose or suggest this feature of Claim 29. Thus, in addition to reasons given above with regard to Claim 15, it is respectfully submitted that the Office has not met its burden of asserting prior art references that contain all of the elements of Claim 29

Consequently, Applicants respectfully request that the outstanding rejection be withdrawn in light of the foregoing comments. A Notice of Allowance is earnestly solicited.

Respectfully submitted,

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